

REMARKS

Claims 16-37, 94-99, and 113 and 114 are pending. Claims 16, 32, 94, 96 and 98 are amended. New claims 113 and 114 are added. No new matter has been added. Applicants request consideration of the pending claims in view of the above amendments and following remarks.

35 U.S.C. §101 Rejection

Claims 94-99 are rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Applicants respectfully traverse this rejection.

The MPEP § 2106 defines statutory subject matter, which is clearly encompassed within the scope of the claimed invention. For example, MPEP § 2106 states, in part,

In practical terms, claims define nonstatutory subject processes if they:

- consist solely of mathematical operations without some claimed practical application (i.e. executing a “mathematical algorithm”); or
- simply manipulate abstract ideas, e.g. bid (Schrader, 22 F.3d at 293-294, 30 USPQ2d at 1458-59) or a bubble hierarchy (Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759), without some claimed practical application.

However, the claimed subject matter of claims 94-99 are more than an abstract idea or solely a mathematical formula and are indeed directed to statutory subject matter. For example, claim 94 has been amended to include, in part, the recitation of:

an electronic stream of energy, control and equipment status data for at least one individual energy user within a plurality of energy users, wherein the electronic stream of data is compiled in real-time by the at

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least one individual energy user and is received by a management system to control performance of the at least one individual energy user. (Emphasis added)

As such, Applicants submit that the invention of claim 94 and dependent claim 95 are indeed directed to a technological art (e.g., an electronic stream of energy, control and equipment status data) and is clearly directed to functional descriptive material that produces repeatable and concrete results such as receiving the electronic stream of energy, control and equipment status data by a management system to control performance of the at least one energy user.

Claim 96 has been amended to include, in part, the recitation of:

...leveraging an electronic stream of energy, control and equipment status data for at least one individual energy user...wherein the electronic stream of data is compiled in real-time by the at least one individual energy user and is received by a management system to control performance of the at least one individual energy user.
(Emphasis added)

Applicants submit that claim 96 and dependent claim 97 are clearly directed to statutory subject matter that requires the use of a technological basis (e.g., electronic stream) and has a concrete repeatable result, i.e., the electronic stream... is received by a management system to control performance of the at least one individual energy user. As one skilled in the art would recognize, controlling an energy user based on an electronic stream of data produces repeatable and concrete results.

Claim 98 has been amended to include, in part, the recitation of:

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reviewing an electronic stream of energy, and equipment status data for the individual energy user, wherein the individual energy user is contained within a plurality of energy users; and replacing or repairing the individual energy user when deemed inefficient based on the data. (Emphasis added)

Applicants submit that claim 98 and dependent claim 99 are directed to statutory subject matter and clearly has a technological basis (e.g., electronic stream of energy, and equipment status data) that produces a repeatable and concrete result (e.g., replacing or repairing the individual energy user when deemed inefficient based on the data). Applicants believe claims 94-99 comply fully with the requirements of 35 U.S.C. §101 and therefore request the withdrawal of the §101 rejections of claims 94-99.

35 U.S.C. §112 Rejections

Claims 32, 96 and 97 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. Applicants respectfully traverse this rejection.

Claim 32 has been amended to delete the word “said” from the claim.

Claim 96 has been amended to recite, in part, “a device associated with the at least one energy user.” This amendment of claim 96 provides sufficient basis for “device” and also remedies any incorporated deficiency by dependent claim 97. Applicants submit that all 35 U.S.C. 112, second paragraph, rejections should now be withdrawn.

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35 U.S.C. §102 Rejections

Claims 16-37 and 94-99 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,785,592 to Smith et al. ("Smith"). Applicants respectfully traverse this rejection.

The invention is generally directed to a system and method for a machine based energy management system which may be human-free in operation. In embodiments, a compilation of energy related data may be provided such as, for example, energy related data, control data and equipment status data which may be received by an energy management system from one or more of plurality of energy users to manage and control the energy users or to continually optimize a setting of the one or more energy users. In embodiments, the system and method may also provide for leveraging an electronic stream of energy, control and equipment status for at least one individual energy user including comparison with historic data to control performance of the at least one individual energy user. Moreover, in embodiments, a method of determining whether to repair or replace an energy user is provided that includes reviewing an electronic stream of energy and equipment status and repairing or replacing the energy user when deemed inefficient based on the data.

The invention of Smith is directed to optimizing procurement energy demand (consumption) and energy supply for a facility or complex. The system of Smith ascertains a baseline model and monitors energy consumption and adjusts the energy consumption to reflect dynamic economic factors. The system of Smith also attempts to project energy consumption and may adjust consumption accordingly. The system and method of Smith is also directed to controlling energy consumption by monitoring consumption data from buildings. However,

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Smith does not disclose or suggest, at least, receiving or processing energy, equipment status and control data from energy users. Nor does Smith disclose determining new peak events.

In regards to the rejection of claim 16, the Examiner cites Smith col. 2, lines 10-47 to demonstrate that Smith anticipates the invention of claim 16. However, this passage is directed to gathering consumption data, modifying consumption, identifying anomalies in consumption and measuring consumption. But, this passage of Smith does not disclose several features of the invention of claim 16 such as, for example, automatic determination of at least one energy relevant event is present, continual optimization, processing of energy, control and equipment status data. Additionally, the Examiner also cites col. 6, lines 42-52. However, this passage is similarly directed to monitoring, predicating and optimizing energy consumption, but again nowhere discloses several features of claim 16. The passage cited by the Examiner at col. 7, lines 18-30 is similarly directed to receiving energy consumption data, modeling consumption data and optimizes system performance (i.e., energy consumption). Again this passage, at col. 7, lines 18-30, is devoid of several features of claim 16 such as, for example, automatic determination of at least one energy relevant event is present, continual optimization, processing of energy, control and equipment status data.

Moreover, the Examiner cited Smith passages at col. 8, lines 58-65, col. 13, lines 7-19, and col. 14, lines 15-22, similarly do not disclose several features of claim 16. Instead, these passages disclose determining a usage baseline and attempting to reduce usage (i.e., consumption), real-time remote meter reading and optimization of energy usage, and measuring variables such as zone temperatures, respectively. However, again, these passages do not disclose one or more of the features of claim 16 such as, for example, automatic determination

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of at least one energy relevant event is present and processing of energy, control and equipment status data.

According to the invention, equipment status data includes data such as, for example, indicating operational status of a piece of equipment (see page 27 of the invention's specification) which might include normal, alarm, alarm codes or equipment status addresses. Further, control data may include such data as on/off control addresses and on/off control commands (see page 27 of the invention's specification), for example. Smith nowhere discloses or suggests processing this type of data.

In reference to claim 17, Applicants submit that none of the Examiner's cited passages of Smith disclose or suggest an energy-related event being a threat of a new maximum peak. For example, the cited passage at col. 23, lines 22-28, simply refers to a general goal of controlling and monitoring of equipment operating schedules, peak demand control and chiller optimization. However, there is no disclosure at this passage (or any other passage in Smith) that a determination of an energy-relevant event is a threat of a new maximum peak, as required by claim 17. Peak demand control disclosed by Smith is not the same as a "determination of an energy-relevant event is a threat of a new maximum peak." (Emphasis added) Moreover, in regards to claim 18, a close inspection of the Examiner's cited passages shows that none of the various types of peaks of claim 18 are disclosed by Smith.

In regards to claim 21, Applicants submit that the Examiner's cited passage, col. 15, line 24 to col. 16, line 9, does not disclose forecasting a peak.

In regards to claim 33, the Examiner's cited passage at col. 12, lines 60-67, does not disclose machine-based reasoning to select between at least two conflicting goals. Rather, this

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passage simply states that energy use is balanced with market pricing signals, which Applicants submit are not conflicting goals.

Applicants submit that since Smith does not disclose several features of the invention of claim 16, the §102(e) rejection should now be withdrawn. Applicants believe that claim 16 is now allowable all claims depending therefrom are also allowable due to at least this dependency.

In regards to claims 94-97, Applicants submit that Smith nowhere discloses an electronic stream of energy, control and equipment status data for at least one energy user. The Examiner's cited passages, col. 7, lines 19-30, col. 8, lines 58-65, col. 9, lines 1-10, col. 12, lines 1-8, col. 13, line 50 to col. 14, line 6, (or anywhere else in Smith) do not disclose at least these features. Applicants submit that the §102(e) rejection of claim 94-97 should now be withdrawn.

In regards to claim 98, Applicants submit that Smith nowhere discloses reviewing an electronic stream of energy and equipment status data for an individual energy user and repairing or replacing the individual energy user when deemed inefficient based on the data. Applicants therefore submit that the §102(e) rejection of claim 98 and 99 be withdrawn.

Support for New and Amended Claims

Support for amendments to claim 16 may be found at least at page 27 where examples of equipment status data such as equipment status address and curtailable demand setpoint is found. Also, at least at page 27 and 28 examples of control data may be found such as on/off control address, on/off control command and reset control command.

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Support for amendments to claim 94 and 96 may be found at least at page 12, second paragraph, where an electronic real time data may be found. Also at least at page 11, first paragraph, an energy management system that receives data from a plurality of energy users and adjustment of at least some of the energy users may be found. Control and equipment status may be found on at least at pages 27 and/or 28.

Support for amendments to claim 98 may be found at least at pages 27 and/or 28 and at least at page 24, third paragraph, where repair or replacement of equipment may be found when deemed inefficient.

Support for new claims 113 and 114 may be found at least at page 12, fourth paragraph, where formulation of energy curtailment responses may be found.

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CONCLUSION

In view of the foregoing amendments and remarks, Applicant submits that all of the outstanding rejections and objections have been traversed or rendered moot and submit that the claims are patentably distinct from the prior art of record and are in condition for allowance.

The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicant hereby makes a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 23-1951.

Respectfully submitted,



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